

UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF NEW YORK

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BRAINWAVE SCIENCE, INC.

Plaintiff

Declaration of Dr. Lawrence A. Farwell
in Opposition to Plaintiff's Motion for a
Preliminary Injunction

- against -

Civil Action No.: 21-cv-4402 (BMC)

ARSHEE, INC., DR. LAWRENCE A.
FARWELL, DR. THIERRY MAISON and
BRAIN FINGERPRINTING FOUNDATION

Defendants.

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Dr. Lawrence A. Farwell, being duly sworn declares under penalty of perjury as follows:

1. I am a Defendant in the above action.
2. I am also the founder and President of Defendant Brain Fingerprinting Foundation.
3. I make this Declaration based upon my own person knowledge and belief.
4. I am a neuroscientist and have been practicing neuroscience since 1981.
5. I received BA from Harvard University in 1973; I received a PhD from University of Illinois in 1992; I was a research associate at Harvard from 1994 through 1996.
6. My further and other qualifications are contained in my curriculum vitae which is attached as *Defense Exhibit 1*.
7. In or around 1985, I became involved in the practice of brain fingerprinting when I invented it.
8. One scientific journal fairly and accurately, if succinctly, described brain fingerprinting as follows:

Brain fingerprinting is an investigative technique which measures recognition of familiar stimuli by measuring electrical brain wave responses to words, phrases, or pictures that are presented on a computer screen. Brain fingerprinting was invented by Lawrence Farwell. Its theory explains that the suspect's reaction to the details of an event or activity will reflect if the suspect had prior knowledge of the event or activity (Farwell and Donchin, 1991). Farwell's brain fingerprinting originally used the well known P300 brain response to detect the brain's recognition of the known information (Farwell and Donchin, 1986, 1991; Farwell 1995. Later Farwell discovered the "memory and encoding related multifaceted electroencephalographic response" (MERMER), which includes the P300 and additional features and is reported to provide a higher level of accuracy than the P300 alone (Farwell and Smith, 2001; Farwell, 1994, 1995). *Journal of Engineering and Technology Research Vol. 4(6)*, pp. 98-103, November 2012 Available online at <http://www.academicjournals.org/JETR>

9. This technique has been successfully used on many occasions. It is not new and much has been written about it in scientific literature, including by the affiant.
10. I have tested brain fingerprinting technology with the FBI, CIA and the US Navy. I have also applied it successfully in criminal investigations, authored articles about it in many peer-reviewed scientific journals and its results were ruled admissible in a criminal trial in the State of Iowa. See *Harrington v. State of Iowa*, No. 01-0653 (Supreme Court, State of Iowa). See, <https://larryfarwell.com/pdf/OpenCourtFarwellMakeig-dr-larry-farwell-brain-fingerprinting-dr-lawrence-farwell.pdf>, Farwell, L.A. and Makeig, T.H. (2005), Farwell Brain Fingerprinting in the case of *Harrington v. State*. *Open Court, X [10]:3*, 7-10. Indiana State Bar Association, September 2005.]
11. The iCognitive system, which is much different and less effective than the system I developed, has achieved none of these landmarks. There is no evidence that iCognitive has ever successfully done what Mr. Krishna Ika claims in his affidavit at ¶3 other than

unsubstantiated claims by non-scientists (including Mr. Ika) with no relevant scientific knowledge or expertise.

12. Mr. Ika makes a number of claims in his Declaration that must be addressed specifically and directly.
13. First, at ¶4 of his Declaration, Mr. Ika claims that the affiant was “employed by Brainwave’s predecessor in interest, Brainwave Science, LLC (“BWS, LLC”) as Chief Scientific Officer from 2012 to 2016.” This is inaccurate. The undersigned was never “employed” by BWS LLC. I was given no employment agreement or consulting contract. Rather, I worked with BWS, LLC personnel at the time referenced and was paid sporadically, with no contract granting me the “CSO” title. Contrary to BWS, LLC’s operating agreement (See *Defense Exhibit 2* at ¶10(a)) there was no consulting agreement between BWS and me.
14. In the same paragraph, Mr. Ika alleges that I conveyed several patents relating to the P300 technology to BWS, LLC in 2013. I did not. In fact, on numerous occasions in the recent past, BWS has actually requested that I convey these now, long after they have expired.
15. To my knowledge, when the patents were recorded at the United States Patent and Trademark Office (“USPTO”), each person who so recorded the patents signed sworn statements that the patents were not transferred to BWS, LLC or BWS.
16. It is my further understanding that the now-expired patents belonged to American Scientific Innovations, LLC (“ASI”).
17. Moreover, I did not receive any consideration to assign the patents to BWS, LLC or BWS nor was there any final agreement as to the terms of any transfer of the patents.

18. Although counsel for BWS, LLC recorded the assignment with USPTO, upon learning he had done so, I recorded a correction that clarified this error.
19. While BWS characterizes this recording as “covert,” this is far from true. Upon learning that a document bearing my name had been erroneously recorded at the USPTO that purported to transfer patents that were owned by a third party---ASI----I recorded the correction. There could be no valid re-assignment of the patents because BWS never owned them in the first place. The true owner was ASI, which later transferred ownership to another party. Furthermore, while I did get some payment from BWS, LLC, no employment agreement or consulting contract was ever agreed upon even though one was specified in the BWS LLC Agreement (See, *Defense Exhibit 2*).
20. Mr. Ika alleges that I was removed from BWS, LLC “for fraud.” The facts surrounding my purported (and illegal) removal from BWS, LLC indeed involve fraud, but by Mr. Ika alone.
21. In sum and substance, I was unilaterally removed by Mr. Ika, the majority shareholder in BWS, LLC without the consent of the minority shareholders, including myself and Brain Fingerprinting Laboratories, Inc. (“BFL”) Mr. Ika changed the BWS, LLC operating agreement which had originally included a provision that it could be modified by a written agreement “executed and delivered by the members” to allow Mr. Ika, as majority shareholder, to unilaterally remove minority shareholders (including myself and BFL). See, *Defense Exhibit 2* at ¶26. He then transferred the minority shareholders’ stock----me and BFL---to the majority shareholder---Mr. Ika’s other company, “eHealthcareWorks Corp”--- without consideration, which was also not authorized. My and BFL’s shares were

essentially stolen since Mr. Ika changed the rules in mid-game to his benefit to expel us, then transferred our shares to himself without due process and without paying for them.

22. Further proof of Mr. Ika's consciousness of guilt can be seen by virtue of his having dissolved BWS, LLC and then forming a new company, BWS, Inc., to which all equity in BWS, LLC was transferred, and which is, upon information and belief, owned solely by Mr. Ika.

23. In paragraph 10, Mr. Ika describes several "challenges" in developing any P300 based system. However, all of the listed challenges were resolved and implemented in numerous other P-300-based brainwave systems, including the original system I developed in 1985; the system developed by Westinghouse Corporation (with me as consultant) in 1992; the system I developed with Mr. Brian Foote in 1993, which has been used by the FBI, CIA and US Navy (as well as the Harrington case cited above), and the Farwell 2007 system pictured in *Defense Exhibit 3*, as well as numerous other systems developed in other laboratories based on my original system. The methods for overcoming the "challenges" in ¶10 a-g were published by myself and others in many journals available in the public domain.¹ There is nothing unique or proprietary about the BWS system's way of dealing with them. All of these methods were implemented in the Farwell 2007 system referenced below, and all of the algorithms, mathematical formulas, experimental design features, and everything else of substance in the BWS application had previously been implemented by me in the Farwell 2007 system and others. In fact, the Farwell 2007 system formed the

¹ Contrary to Mr. Ika's claim in ¶ 10 (f), the BWS system did not implement "machine learning algorithms and Artificial Intelligence." My colleagues and I have, however, implemented these in other systems, but not in the Farwell 2007 system from which I brought the algorithms, mathematical formulas, experimental design, etc. that formed the basis for the BWS system.

basis for BWS' development work on the BWS system after I provided these to BWS in 2012. These methods as provided to BWS are also within the public domain and cannot to my understanding be considered trade secrets to me or BWS.

24. All the algorithms used in the BWS system were developed and applied by others before BWS even existed, including those incorrectly labeled "brainwave trade secrets" in ¶ 11 of Mr. Ika's Declaration. The term "proprietary software code" is not defined as to content and scope and is therefore illusory. The hardware used comprised an "off the shelf" PC computer and a headset developed by National Yangming Jiaotong University ("NYJU") in Taiwan. None of the systems I had previously developed used this headset, and the system Dr. Maison and I later developed did not use it either.
25. If BWS's claim is that the software that communicates with that headset is proprietary it is of no matter because the Farwell/Maison system does not use it since it employs a different headset.
26. Regarding "user interface," BWS's was developed using open-source software packages that largely determine what the interface looks like and how it operates.
27. In response to the claim that BWS has created a system that is accurate, there is simply no proof of this; the BWS system has never been tested in a scientific laboratory or successfully applied in real-world cases. There is no evidence that the system is accurate.
28. The only available proof of accuracy of brainwave-based systems for detection of concealed information stored in the brain are the scientific papers and real-world applications of systems I developed, and which were proven to be highly accurate, even admissible in a criminal proceeding, as well as scientific research papers by numerous other scientists based on my original invention and scientific publications.

29. There are two substantive things that all programs for detecting concealed information with brainwaves, including the BWS software, do: a) Collect brainwaves along with other data such as ongoing counts of the types of stimuli that have been presented to elicit the brainwaves. The brainwaves are displayed as plots of colored lines. The other data are displayed in tabular form; b) Analyze brainwaves: In the displays of this function, the brainwaves are again presented with colored lines, and the data about the results of the analysis are presented in tabular form.
30. The only screenshot Mr. Ika has presented of the essential function of collecting brainwaves in the BWS software is *BWS Exhibit B*. (Also, in *BWS Exhibit D* on the “Replay Test” screen, the same brainwaves and data are displayed during a replay of the test that looks essentially identical to display during the original recording but displays previously recorded data rather than real-time data while being originally collected.)
31. The first photo in *Defense Exhibit 3* was taken in 2007. It depicts my Farwell Brain Fingerprinting system that I developed with Mr. Brian Foote. The second photo was taken in 1993. It shows a previous version of this system that we developed and used for research at the FBI, the CIA, the US Navy, and in criminal cases, including the Harrington case wherein Farwell Brain Fingerprinting was ruled admissible in court, and in several publications in peer-reviewed scientific journals. This is essentially identical to the Farwell 2007 system except for the respective labels for the name of the system (“Farwell Brain Fingerprinting” in 2007 and “Farwell MERA System” in 1993).
32. Comparing Dr. Farwell’s 2007 program with the BWS program reveals the following:
- a) The brainwave plots in my 2007 program (before BWS was founded in 2012), shown on the screen in the upper right of the photo, are identical to the brainwave plots in the BWS

program. The only differences are the number of EEG channels and minor cosmetic differences in the shape of the windows, background color of the display, etc. The brainwaves collected and displayed therein and the experimental protocols and algorithms for collecting them are also the same in the BWS software as in my earlier software.

- b) The data tables in this Farwell 2007 program are also identical to the data tables in the BWS program, displaying the same data with the same labels, and even have the same columns and rows in the same order.
33. This is because the BWS program was developed to emulate as closely as possible my earlier programs that performed all the same functions, based on public-domain information and specifications I provided to BWS (and to many others before BWS existed).
34. Specifically, the brainwave plots in both the BWS system and my Farwell 2007 system display the three types of brainwaves as described by Dr. Maison in his declaration: Targets, Probes, and Irrelevants. These are labeled as Targets, Probes, and Irrelevant in both programs and plotted respectively in red, blue, and green lines in both programs. The only differences between the plots are minor cosmetic differences resulting from different open-source programs used to generate the displays. The underlying data, algorithms, mathematical formulas, and experimental protocols for producing them are also identical in my 2007 and BWS software. I know, because I wrote them for the Farwell 2007 program (and earlier ones including the 1993 version) and provided them to BWS in the course of my consulting with BWS.

35. Regarding the data tables, the BWS program and the Farwell 2007 program display the same data with the same labels. One data table in both programs display counts of the stimuli (words or pictures) presented to the subject. The BWS table has identical rows and columns, labeled identically, to those of the Farwell 2007 program (columns: Target, Probe, Irrelevant, Total; rows: Trials, Good, Required, RT, Accuracy).
36. A second data table in the BWS program is identical in labels and content to one row of the corresponding data table in Farwell 2007, except for the difference in columns corresponding to EEG channels (2 for BWS, 4 for Farwell 2007).
37. The Farwell 2007 program has more rows in this data table because it implements additional methods for detecting noise or artifacts in the data that are not included in the BWS program. Note that Ika falsely claimed that the BWS program implemented proprietary trade secrets to detect noise in the EEG data, whereas in fact the BWS program only included one of the four methods for that purpose applied in the Farwell 2007 program, as displayed here.
38. The algorithms, mathematical formulas, and experimental protocols for producing the data displayed are also identical in the Farwell 2007 and BWS programs. I know this, because I wrote them for the Farwell 2007 and 1993 programs and gave them to BWS to form the basis of the BWS program.
39. Above these two data tables, both the BWS and Farwell 2007 programs display “stimulus type,” “stimulus,” and “reaction time,” and a few other items.
40. If any program is “plagiarized” from any other, then the BWS program is “plagiarized” from my Farwell 2007 program and/or my Farwell 1993 program.

41. Mr. Ika did not provide a screenshot of the data analysis screen of the BWS program. However, the data analysis screen in the BWS software is virtually identical to the data analysis screen at the upper left in the photo of my 2007 program. This includes both identical brainwave plots and identical data tables of the data relevant to the analysis. Here again, the only differences are cosmetic differences in the size and shape of the windows and other minor differences in the layout of the display. The data analysis algorithms that produced the data displayed on the BWS data analysis screen are the same as the data analysis algorithms in my previous Farwell 200 application (except that my application performed several additional analyses that were not included in the BWS application).
42. This also is because the BWS program was developed to emulate as closely as possible my earlier programs that performed the same functions, based on public-domain information provided to BWS by myself.
43. Mr. Ika's claim that features described in ¶10 (a – g) are BWS' trade secrets is directly contradicted by the fact that all of these features in the BWS software were contained in my pre-existing Farwell 2007 software and numerous other software applications by myself and others based on my original Brain Fingerprinting invention and the original software I developed to implement it. I know this because I wrote the code in several previous versions such as my 2007 and 1993 versions, I am also familiar with the code implementing these features in the BWS software.
44. Everything of substance in the BWS software had already been implemented by me and others in previous software programs. If there were grounds for a lawsuit, then I would have grounds to sue BWS for stealing his my "trade secrets" as implemented in 1993 and

2007. However, everything of substance was already in the public domain. I had shared it with scientific colleagues and others as explained herein and in Dr. Maison's declaration.

45. The BWS program adds nothing to the value of the programs already in the public domain, including the programs I invented and developed.

46. Mr. Ika and BWS are taking ideas that have been publicly available for years (at least since 1985, when I made them publicly available and merely putting them together to try to prevent others from using the publicly available ideas by claiming that they now are entitled to protection as a trade secret.

47. By way of analogy, this is comparable to claiming that a person who creates a sauce using mayonnaise, herbs and a "secret ingredient" has trade secret protection covering not only the secret ingredient, but the components too. Under this theory, mayonnaise and the herbs, both within the public domain, would now be considered trade secrets.

48. The only part of the BWS program that is different from all the previous ones is the specific software that communicates with the headset. My previous programs used different headsets (and associated amplifiers and digital signal processors) from those used by the BWS software. The Farwell/Maison program also uses a different headset from that of the BWS program, so these parts of the respective software programs are totally different. In other words, the only unique part of the BWS program is not included in the Farwell/Maison program.

46. In ¶19 of his Declaration, Mr. Ika references an online demonstration video in which I am depicted along with two computer screens. See, *BWS Exhibit B*.

47. *BWS Exhibit B* is a photograph of two computer screens. On the left is a plot of brainwaves and some tabular information as displayed by the BWS software. On the right is a plot of brainwaves and tabular information displayed by the Maison/Farwell software.
48. The images that are displayed on the screen on the left comprise the following two elements.
49. A) **Brainwave plots:** These plot the same brainwave data that have been plotted in all public-domain applications since I wrote the first Brain Fingerprinting program in 1985. Plotting brainwave data is not a trade secret and is not proprietary to anyone. The appearance of the plots is dictated by the output of the open-source software described below. Anyone who plots these same public-domain data using these same open-source software packages will come up with essentially the same appearance on the screen. None of this is proprietary, and none of it is a trade secret.
50. B) **Data tables:** These display the same data, comprising counts of the number of stimuli presented and brain responses measured, the reaction time of the subject, the accuracy of responses, and other data common to all programs for implementing Brain Fingerprinting. Like brainwave plots, these tables comprise the same data that have been displayed in all public-domain applications since I wrote the first Brain Fingerprinting program in 1985. Displaying data in tabular form is not a trade secret and is not proprietary to anyone. The appearance of the tables is dictated by the output of the open-source software described below, which was used for this application. Anyone who plots these same public-domain data using these same open-source software packages will come up with essentially the same appearance on the screen. None of this is proprietary, and none of it is a trade secret.

51. In fact, both the brainwave displays and the data display tables in these photos are virtually identical to the data display tables in the software developed by Brian Foote and myself that I used beginning in the early 1990s (see above discussion of the Farwell 1993 and Farwell 2007 programs and *Defense Exhibit 3*), and very similar to the same the original Brain Fingerprinting software that I developed at the University of Illinois and used in my research there in the 1980s.
52. The open-source software that was used in this application dictated the appearance on the screen of these standard, common, well-known, public-domain data (brainwaves and tabular results – the same ones as in all the other Brain Fingerprinting applications that predated the existence of BWS). The open-source software that was used, which determined the appearance of this screen displayed in the screenshot, is the C# programming language, a very common open-source language (<https://dotnet.microsoft.com/languages/csharp>).
53. The building blocks of this application use the Microsoft .NET framework. .NET framework is a free software developer open-source platform for building software applications. See, <https://dotnet.microsoft.com/>
54. This software application uses two different Graphical User Interface (GUI). The GUI is what dictates how the application will look on the computer screen. This software uses Microsoft WinForms and Microsoft Windows Presentation Framework (WPF) both in the public domain and open software. See, https://en.wikipedia.org/wiki/Windows_Forms; <https://github.com/dotnet/wpf>
55. To facilitate and speed up the development, the programmer (Dr. Maison, when affiliated with BWS) used additional software components to create graphs and display data in

tables. The Graphical display software (Interactive Data Display created by Dmitry Voitsekhovskiy and Mikhail.) is open software and freely downloadable on the GitHub repository. See, [https://www.microsoft.com/en-us/research/project/interactive-data-display/;https://github.com/predictionmachines/InteractiveDataDisplay](https://www.microsoft.com/en-us/research/project/interactive-data-display/) and <https://github.com/microsoft/InteractiveDataDisplay.WPF>

56. When these open-source software components are used, the display looks like the one on the left in *BWS Exhibit B*. The appearance is automatic, except for a few minor adjustments such as the color.
57. The data table package is based on the Extended DataGrid open-source project as mentioned in <https://www.findbestopensource.com/tagged/datagrid?fq=Ms-PL> the project was so successful that it's now incorporated into Microsoft's open-source framework. See, <https://github.com/dotnet/DataGridExtensions>
58. Using this package, as the BWS developers did, further dictates how the data tables will look when displayed on the screen.
59. Any software displaying essentially the same public-domain data (the standard brainwaves measured in all applications for detecting concealed information with brainwaves) and tabular results (the standard parameters tabulated in all applications for detecting concealed information with brainwaves), using the same open-source software packages used here, will inevitably look like the screen in this photograph. The software that produced the displays and determined how they look is open source. The data displayed are the same standard data displayed in every program for detecting concealed information with brainwaves since my original implementation in 1985, including the Farwell 2007 and Farwell 1993 programs depicted in *Defense Exhibit 3*.

60. There is nothing whatsoever proprietary about any of the above, and there are no trade secrets depicted in *BWS Exhibit B*.
61. The picture on the right in *BWS Exhibit B* of a screen from the Maison/Farwell application looks similar to the picture of the BWS application, as will inevitably be the case when the same public domain data are displayed through the same open-source software packages that dictate the appearance of the display.
62. There are two features of the respective pictures, however, that are noteworthy.
63. The BWS software displayed here measures only two channels, so there are only two lines on the graph. The headset used by BWS can only measure two channels. The Maison/Farwell headset and software measure four channels, so there are four lines on the graph. All BWS software measures only two channels, and all Maison/Farwell software measures four channels, as dictated by the respective headsets.
64. The background color of the BWS screen is blue. All of the screens in all of the software produced by BWS software had a blue background. The Maison/Farwell software always has a green background.
65. *After* BWS obtained the Maison/Farwell software from Dr. Maison, however, and before they submitted it to the Codequiry comparison, *BWS modified their software to look more like the Maison/Farwell software*. One of the modifications was changing the background color of the screen. All of the purported “BWS Software” in all of the comparisons except this one has a green screen, like the (later produced) Maison/Farwell software, and unlike the actual BWS software that pre-existed the Maison/Farwell program. This can be verified by examining the dates for the modifications in Microsoft Visual Studio.

66. This one screen is the only one in all of the exhibits that actually comes from the real, unmodified BWS program. And note that the similarities on the screen between this and the Maison/Farwell software are inevitably produced by displaying the same public-domain data using the same open-source software packages that dictate the appearance of the screen. These same data are displayed in the same way, except for minor cosmetic differences based on the different open-source software packages used, in my 2007 and 1993 programs, as noted above.
67. One obvious difference between the two is that Maison/Farwell used four channels and BWS used only two, according to the requirements of their respective headsets. Other differences are discussed below.
68. How extensive the additional modifications made by BWS, if any, will be revealed in discovery through an in-person analysis of the BWS software. In any case, the software that BWS represents as the software that Dr. Maison copied – the screens with the green background and unknown additional modifications implemented later by BWS – *did not exist at the time that BWS says Maison obtained it. It was created* (that is, modified from the original BWS program) *after BWS had obtained the Maison/Farwell software*, in order to make the purported BWS software look more like the Maison/Farwell software.
69. Contrary to their claims, BWS could not have compared the BWS software that pre-existed the Maison/Farwell software with the Maison/Farwell software. More likely, BWS compared a modified version of its software, made to look more like the Maison/Farwell software, with the Maison/Farwell software. Consequently, *all of the claims regarding similarity of the two respective software programs are based on a flawed and disingenuous comparison by BWS.*

70. At ¶22, BWS touts its use of a Codequiry software to prove that Dr. Maison and I plagiarized BWS software. First, neither Dr. Maison nor I need or want to plagiarize BWS software since we are both leading experts in the field of brain fingerprinting and are more than capable of developing our own software that is more effective than anything BWS could ever create. My 2007 and 1993 programs are examples.
71. *BWS Exhibit C* is the Codequiry analysis, which I will discuss in detail. Page numbers referenced below are from *BWS Exhibit C*.
72. Page 1 contains a definition of plagiarism and a discussion of “How to determine if your proprietarily [sic] software is stolen and used by someone else.” Obviously, no trade secrets are contained in this information.
73. Page 2 states “We submitted Brainwave Science software and Brain Fingerprinting software to the Codequiry engine.”
74. The package on the left, titled “All the software projects developed by Brainwave Science for iCognitive Software,” was purportedly compared with the package on the right, titled “The software projects that is [sic] used by Brain Fingerprinting LLC. for NeuroDyne software.”
75. That description is unequivocally and demonstrably wrong.
76. There are two misstatements here:
77. First, BWS manipulated the code that they submitted for comparison. BWS had the original code developed by Dr. Maison when he was affiliated with BWS, which they were using in their application. This is what they claim as proprietary. They did NOT, however, submit that code to the Codequiry engine. BWS first obtained from Dr. Maison a copy of the code that he and I jointly developed (“NeuroDyne”), then modified their code to appear

similar to the Maison/Farwell code and submitted the two respective codes for comparison.

This can be proven by examining the dates for the modifications in Microsoft Visual Studio.

78. Second, BWS did not submit “All the software projects...” They only submitted a portion of the software, and did not include the actual software for measuring brainwaves through the headset – the essential part of a brainwave program. The only software that was not open source and might be considered proprietary is the software that measures the brainwaves through the headset. The headset used by BWS is totally different from the headset used by me and Dr. Maison. The respective headsets are developed and marketed by different third parties (BWS’ is from NCTU in Taiwan; Maison/Farwell’s is from CGX in the USA). BWS’ headset measures two channels of EEG, Maison/Farwell’s measures four channels. More importantly, the software for measuring brainwaves through a headset – the essential constituent of any brainwave program – is complex, extensive, voluminous, and unique to each headset. The Maison/Farwell software for this portion of the code is totally different from the BWS software. The BWS software will not work with the Maison/Farwell headset and vice versa. If BWS had compared the actual respective software applications that measure the brainwaves through the two different headsets, there would have been close to a 0% match. BWS reported a 99% match. This could not possibly have been achieved if the actual software for measuring the brainwaves through the headset were evaluated.

79. Accordingly, there are no trade secrets on Page 2.

80. Pages 3 – 5 contain the results of the misleading and disingenuous analysis on the wrong software.

81. Since this analysis comprised essentially a fake comparison, the summary statement is false: “99% of Brainwave Science’s ...proprietary files are used...”
82. Actually, only 3% of the code showed matching information, as per the Codequiry figures for “total matches” compared to “lines of code.”
83. Given that the code was developed on the same platform by the same developer (Dr. Maison) and performed a similar function, inevitably there will be at least that number of matches.
84. There is no indication in the Codequiry report that any of these matches on 3% of the code were in code that might be construed as proprietary to BWS.
85. In any case, nothing actually contained on this Page constitutes trade secrets.
86. Page 6 misrepresents what is displayed on Pages 7 and 8.
87. As with Page 1, the side-by-side comparison is represented as being BWS’s code versus Maison/Farwell code, whereas in fact the code on the left is BWS’s modified version of their code, modified to look more like the Farwell/Maison code after BWS received it from Dr. Maison.
88. Pages 7 and 8 contain lists of folder names taken from screenshots taken in visual studio, an open-source development environment.
89. The open-source development environment and tools used to create that are described in Dr. Maison’s declaration.
90. The lists of folder names on Pages 7 and 8 are the digital equivalent of taking a photograph of a file cabinet drawer containing labeled folders, and then claiming that the papers in the folders and the information on the papers in the folders are proven to be trade secrets. I can on request produce an identical screenshot, with all the same folder names, where the

files in the folders contain only software developed by Mr. Brian Foote and me to implement a version of my Brain Fingerprinting invention that preceded the existence of BWS. Anyone can make a list of file folders. Recall that BWS had a copy of the Maison/Farwell code, including all the folder names. A list of file folder names says nothing about whether the folders contain relevant files, or whether or not the code or other information in those files constitutes trade secrets.

91. Many of the file folder names on both lists are standard, default file folder names of visual studio in the .NET development environment (e.g., Controls, Resources, Login, Themes, Updates, etc.).
92. In any case, a list of the names of file folders provides no information, let alone proof, that any of the files in the folders, or the information or code in the files, is proprietary or constitutes trade secrets.
93. There are no trade secrets on Pages 7 and 8 of *BWS Exhibit C*.
94. In summary, there are no trade secrets anywhere in *BWS Exhibit C*.
95. *BWS Exhibit D* was produced by applying the same open-source software packages as described in the discussion above of **BWS Exhibit B** to more of the same standard information that is displayed in many previous applications for measuring brainwaves for the detection of concealed information. Much of the same information, such as subject demographics, is also collected in other kinds of applications. As in *Defense Exhibit 3*, the appearance of the screens is dictated by displaying the same public domain data through the software packages discussed below.
96. The Software components are written in Microsoft C# programing language. C# (pronounced See-Sharp) is a popular and modern programming language created by

Microsoft in 2000 alongside their .NET framework. They wanted a more flexible language to build a variety of secure and robust modern applications for Windows, web servers, tablets, and phones. It is now arguably one of the most valuable programming languages in the world to know. C# is an open-source programming language. See, <https://dotnet.microsoft.com/languages/csharp> .

97. Aside from the language itself, the building blocks of the application use the Microsoft .NET framework (pronounced as "dot net"). .NET framework is a free software developer open-source platform for building software applications. See, <https://dotnet.microsoft.com/>

98. The software application uses two different Graphical User Interface (GUI). The GUI is what dictates how the application will look on the computer screen.

99. We use Microsoft WinForms and Microsoft Windows Presentation Framework (WPF) both in the public domain and open software. https://en.wikipedia.org/wiki/Windows_Forms; <https://github.com/dotnet/wpf>

100. To facilitate and speed up the development we used additional software components to create graphs and display data in tables. The Graphical display software (Interactive Data Display created by Dmitry Voitsekhovskiy and Mikhail.) is open software and freely downloadable on the GitHub repository. See, <https://www.microsoft.com/en-us/research/project/interactive-data-display/>; <https://github.com/predictionmachines/InteractiveDataDisplay> and <https://github.com/microsoft/InteractiveDataDisplay.WPF>

101. The data table package is based on the Extended DataGrid open-source project as mentioned in <https://www.findbestopensource.com/tagged/datagrid?fq=Ms-PL> .

102. The project was so successful that it's now incorporated into Microsoft's open-source framework. See, <https://github.com/dotnet/DataGridExtensions> .
103. The internal data format for storing data uses the extended Markup Language (XML) as described in open standard. See, <https://www.w3.org/XML/> <https://en.wikipedia.org/wiki/XML> .
104. Microsoft provides free of charge the necessary tools to create software for Windows or other platforms. We used Microsoft Visual Studio. See, <https://visualstudio.microsoft.com/vs/community/> .
105. As with *BWS Exhibit B*, in *BWS Exhibit D*, there is nothing proprietary about either the information displayed – the common, public-domain information displayed in all such programs – or the appearance of the displays – which is dictated by the open-source software packages used to display the information.
106. *BWS Exhibit D* contains no proprietary information and no trade secrets.
107. Moreover, as discussed above with reference to *BWS Exhibit B*, all of *BWS Exhibit D* is misleading and disingenuous. The screens shown in *BWS Exhibit D* that purport to be the original BWS screens are not in fact what BWS has represented them to be. All of these screens have been modified to look more like the Thierry/Farwell software. This can be proven by examining the dates of the modifications in Microsoft Visual Studio.
108. The most obvious modification is to change the background color from blue to green. All BWS software that pre-existed the Maison/Farwell software – that is, all of the software that BWS claims Maison/Farwell copied – had blue backgrounds. All of the screens shown in Exhibit D for both the purported BWS software, and the Maison/Farwell software have green background.

109. This indisputable fact has three implications: (1) BWS manipulated the code they submitted to the Codequiry comparison; (2) BWS manipulated the code that generated the screenshots in *BWS Exhibit D*; (3) we will not know how much BWS modified the “BWS code” to make it look more like the Maison/Farwell code until after an in-person, live analysis of the BWS software through discovery.
110. At the present time there is no evidence that the Maison/Farwell code is similar to the pre-existing BWS code, because the pre-existing BWS code is not what was submitted to Codequiry or represented in the Exhibits and Mr. Ika’s affidavit.
111. At ¶29, Mr. Ika expresses his frustration at our success by complaining that Dr. Maison and I have “surreptitiously distributed or licensed copies of a system, incorporating the Brainwave Trade Secrets, to the Clinical Legal Studies Department at University of Canterbury, New Zealand and to the Forensic Science Laboratory for the Government of Delhi, India.” There is nothing surreptitious in our scientific collaborations with the University of Canterbury or our working with the Forensic Science Laboratory for the Government of Delhi, India. Neither of these involved any trade secrets of BWS. I have successfully applied my Brain Fingerprinting invention in the laboratory and the field and in collaboration with academic and government agencies since his collaboration with the CIA, the FBI, and the US Navy in the early 1990s and my prior research at Harvard and the University of Illinois.
112. Since, as established above, Defendants have not misappropriated any trade secrets, there can be nothing “surreptitious” about Dr. Maison and I marketing our successful application of Farwell Brain Fingerprinting to governments, universities, and law enforcement agencies. BWS is free to do that same, that is, to compete in the free market.

Instead, by bringing this action, it seeks to circumvent the free market by nullifying a competitor.

113. For the reasons set forth above and all Defendants' submissions, I request that the Court deny BWS's motion for a preliminary injunction in all respects.

Dated: Kingston, WA
November 15, 2021



Dr. Lawrence A. Farwell

Sworn to before me this 15 day of November, 2021

State of WASHINGTON
County of KITSAP

On this, the 15 day of November, 2021, before me, a notary public, the undersigned officer, personally appeared Lawrence A. Farwell, known to me (or satisfactorily proven) to be the person whose name is subscribed to the within instrument, and acknowledged that he executed the same for the purposes therein contained.

In witness hereof, I hereunto set my hand and official seal.



Notary Public ERIN PATTON
EXP JANUARY 24 2022

